Oregon
Theodore R. Kulongoski, Governor

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May 30, 2008

Colonel Thomas E. O'Donovan,
District Commander
U.S. Army Corps of Engineers
ATTN: CENWP-PM-E
P.O. Box 2946
Portland, OR 97208-2946

Attn: Robert E. Willis, Chief of Environmental Resources Branch

Dear Colonel O'Donovan:

On July 7, 2007, the Department of Environmental Quality (DEQ) received application materials from United States Army Corps of Engineers (USACE) pursuant to renewing Clean Water Act Section 401 Water Quality Certifications (WQC) for the Columbia River Channel Improvement Project (CRCIP) and Columbia River Operations and Maintenance Dredging (O&M). USACE requested DEQ to combine the previously distinct evaluations, consider issuing a single 401 WQC, and issue the decision six months prior to expiration of the existing 401 WQCs (which will occur on June 23, 2008) in order to facilitate new, earlier USACE contracting procedures. On November 8, 2007, DEQ requested additional information from the USACE.

DEQ has reviewed the application materials, associated documents, and subsequent requested information to prepare a draft Findings and Evaluation document and a draft 401 WQC. DEQ incorporated all substantive comments received during publishing of these drafts, and hereby issues the final Findings and Evaluation document as an attachment to this final 401 WQC containing the information and conditions which follow. Issuance of this 401 WQC rescinds the previous 401 WQCs for CRCIP and O&M, as well as all associated amendments.

Limits on Evaluation: As 401 WQC was previously issued for Channel Deepening, construction in multiple reaches has been completed. Therefore, this 401 WQC covers only those reaches yet to be deepened, as described below. Additionally, although USACE requested certification for maintenance dredging from RM 3 to RM 192, adequate analysis of water quality and beneficial use impacts for reaches RM 125.3 to RM 192 has not been completed. Therefore, this 401 WQC only authorizes maintenance dredging from RM 3 to RM 125.3 and specified side channels. Additional analysis and evaluation is required for future consideration of 401 WQC for RM 125.3 to RM 192.

Project Description: USACE is requesting certification for additional time to complete construction of the deepened channel, continued maintenance of the former channel depth, and eventually on-going maintenance of the deepened channel upon completion of construction through duration of this 401 WQC. The project is discussed in greater detail in the Evaluation and Findings Report, but a summary of the proposal is included below. The types of dredging equipment that will be used for this project are: hopper, pipeline, clamshell, and excavator dredges and a drill barge (for drilling and blasting).

1. Deepening Completion - Areas of the channel remaining to be deepened include approximately RM 27 to 41 and RM 48 to 91. Material will be removed from these areas to a depth of up to -48 feet. Additional depth may result in areas where rock is currently present. These include:

- Warrior Rock: RM 87 to 88. Removal of rock to -50 feet with possible disturbance to -60 feet due to the necessity to drill holes for blasting.
- Slaughters Bar: RM 62-67. Removal of rock to -49 feet with possible disturbance to -55 feet due to the presence of boulders.

There is a possibility that other areas of small rock removal may be encountered as the remainder of the Project is deepened. These areas will be removed as to not cause a navigational hazard that could result in signification environmental damage.

2. Maintenance Dredging

- RM 3.0 to 106.5 – In areas where the channel has been deepened, maintenance dredging will occur to a depth of -48 feet (-43 feet with up to 5 feet of advanced maintenance depth) and overwidth dredging of up to 100 feet in selected high volume shoal areas specified on submitted maps. In areas yet to be deepened, maintenance dredging will occur to a depth of up to -45 feet (-40 feet with up to 5 feet of advanced maintenance depth) and overwidth dredging of up to 100 feet in selected high volume shoal areas specified on submitted maps.

- RM 106.5 to 125.3 - Maintenance dredging to a depth of -19 feet (-17 feet with up to 2 feet of advanced maintenance depth) and up to 100 feet of over-width dredging where needed.

- Side-channels
  - Skipanon Channel - dredging to -18 feet and overwidth where needed
  - Hammond Boat Basin - dredging to -12 feet and overwidth where needed
  - Wahkiakum Ferry/Westport Slough - dredging to -12 feet and overwidth where needed
  - Oregon Slough (upstream end) - dredging to -12 feet and overwidth where needed

3. Disposal - Dredged material will be disposed by a variety of in- water and upland methods including:

- Flowlane sites are in or adjacent to the Columbia River federal navigation channel at depths generally from -50 to -65 feet. However, there would be exceptions to the general depth criteria for the channel improvement project. The actual disposal sites cannot be designated beyond the general description in the first sentence of this section. They vary from year to year depending on the condition of the channel. Flowlane disposal could occur at depths of -35 to -65 feet between RM 64 to 68 and RM 90 to 101. Following completion of sturgeon studies demonstrating acceptable impacts, flowlane disposal could occur in areas over -65 feet deep only in the following specific areas in Oregon: RM 29 to 40; RM 54 to 56.3; and RM 72.2 to 73.2. In accordance with the amended Clatsop County Plan, flowlane disposal within Oregon waters in areas deeper than -65 feet between RM 3 to 13.5 (Astoria-Megler Bridge) is not allowed. The

substrate at all flowlane locations is predominately medium grain sand with some fine and coarse grain sand.

- Harrington Sump is a deepwater (~-40 feet) site located between RM 20 to 22 in Oregon waters that historically and currently is used for placement of dredged material by hopper dredges. The sandy substrate at this location is comparable to the dredged material placed there. The sump is typically filled over a 2 to 3 year period, to approximately -35 feet and then dredged to approximately -45 feet with material disposed on Rice Island.
- The two Oregon sites selected for beach nourishment, Sand Island and Miller Sands Spit, are non-vegetated erosive shoreline areas with sandy substrate.
- Various upland disposal sites properly designed and permitted under a DEQ Solid Waste Letter of Authorization.

4. Wetland Mitigation - Mitigation is required for wetland losses due to the placement of dredge material impacting wetlands. Currently in Oregon, wetland mitigation will occur at the Webb Mitigation site. A contract was awarded for the work on the mitigation site in May 2007. Construction began in June 2007. On July 13, 2005, DEQ provided concurrence on the USACE determination that the project was covered by the programmatic 401 WQC issued for the USACE Nationwide Permit Package, as the project falls under Category 27 (*Aquatic Habitat Restoration, Establishment, & Enhancement Activities*). Therefore, this portion of the project is not covered under this 401 WQC.

5. Ecosystem Restoration – Additional actions are proposed in conjunction with the deepening project which are anticipated to provide benefits to water quality and beneficial uses. The following ecosystem restoration features are occurring in Oregon:

- Purple Loosestrife Control Program between RM 18-52
- Tenasillahe Island - Interim (Completed)
- Tenasillahe Island - Long Term
- Tide Box retrofits to provided fish passage at: Tide Creek, and Grizzly Slough
- Lord/Walker Islands (Completed)

Project Location: The Columbia River from approximately River Mile (RM) 3 to 125.3, Skipanon Channel, Hammond Boat Basin, Wahkiakum Ferry/Westport Slough, and the upstream end of Oregon Slough.

The Columbia River is classified as water quality limited under the Clean Water Act, Section 303(d), for the parameters of: Temperature; DDE (DDT metabolite); PCB; and Arsenic. An Environmental Protection Agency (EPA) approved Total Maximum Daily Load (TMDL) has been developed for the parameters of: Dioxin and Total Dissolved Gas. Other parameters listed for potential concern include: Cadmium; Copper; Iron; Lead; Mercury; Nickel; Silver; Tributyltin; Zinc; Aldrin; Alpha-BNC; Benzo(a)anthracene; Benzo(g, h, i)perylene; Bhc; Chlordane; Chrysene; Cyanide; DDD; DDT; Dieldrin; Endrin; Hexavalent Chromium; pH; Phenol; Polynuclear Aromatic Hydrocabons (PAHs); Pyrene; and Radionuclides.

Beneficial uses in the Columbia River include: Public Domestic Water Supply; Private Domestic Water Supply; Industrial Water Supply; Irrigation; Livestock Watering; Anadromous Fish Passage; Salmonid Fish Rearing; Salmonid Fish Spawning; Resident Fish and Aquatic Life; Wildlife and Hunting; Fishing; Boating; Water Contact Recreation; Aesthetic Quality; Hydro Power; and Commercial Navigation & Transportation

The Columbia River was identified by EPA as one of seven Great Water Bodies in EPA's 2006-2011 Strategic Plan. The goal of EPA's Strategic Plan is to prevent water pollution, and improve and protect water quality and ecosystems to reduce risks to human health and the environment with a focus on toxics reduction in the water column, sediment and fish tissue.

Based on information provided by the applicant and available to DEQ from other sources, DEQ does not anticipate any violations of State Water Quality Standards, including *Oregon Administrative Rule (OAR) 340-041-004, Antidegradation Policy for Surface Waters*, provided the applicant strictly adheres to the conditions which follow.

CONDITIONS

1) **Duration of Certification**: This 401 WQC becomes effective on June 2, 2008 and expires on June 1, 2013.

2) **In-water work windows**:

   a) Except as provided below, dredging in the Columbia River from RM 106.5 to 125.3 is allowed only between August 1 and September 30 of any given year.

   b) Dredging in the described side channels and in any shallow water areas (less than 20 feet) is allowed only within the Oregon Department of Fish and Wildlife's (ODFW) preferred time window, November 1 to February 28, described in: *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources, 2000*, or most current version.

   c) All dredging in the Columbia River navigation channel and specified overwidth areas from RM 3 to RM 106.5 is allowed on any day of the year.

   d) In-water disposal is prohibited between RM 3 and RM 7 between July 1st and December 31st in any given year.

   e) In-water disposal is prohibited between RM 35 and RM 75 between the 8th and 20th weeks of the calendar year.

3) **Sediment Characterization**: Sediments from within Columbia River Federal Navigation Channel were previously determined to be suitable for unconfined in-water disposal through meeting exclusionary criteria under the Dredged Material Evaluation Framework (DMEF) Lower Columbia River Management Area (1998).

   No less than 90 days prior to dredging any off channel areas, including shallow water areas (less than 20 feet), specified side channels, or non-Federal turning basins; USACE

must prepare a sampling and analysis plan (SAP), in accordance with the Sediment Evaluation Framework, 2006 (or most current version), to be submitted to the Regional Sediment Evaluation Team (RSET) Project Review Group (PRG) for review and approval. Sediment analysis data must be reviewed by the PRG for a determination of appropriate disposal options and management of the leave surface following dredging when contamination has been detected. Dredging and disposal may begin in these areas only after DEQ reviews and accepts the PRG determination. USACE must comply with any specific management practices included with the PRG determination and accepted by DEQ.

If sediment from any off channel areas is determined to be unsuitable for unconfined in-water disposal by the PRG, USACE must coordinate with DEQ's Land Quality Division to meet the appropriate solid waste disposal requirements. A Solid Waste Letter of Authorization may be required. Depending on types and levels of contaminants present, elutriate testing and additional approvals from DEQ may be required prior to release of return water from an upland disposal facility.

4) **Dredging Operations:** USACE and its contractors must conduct dredging operations employing Best Management Practices (BMPs) which minimize disturbance or siltation of adjacent habitat or waters. These BMPs must include the following:

a) Hopper and pipeline dredges:

i. Must be operated with the intake head at or below the surface of the sediments being removed during all periods of active dredging.

ii. Reverse purging of the intake line must be kept to an absolute minimum. Should purging be necessary, the intake line may be raised no more than 3 feet from the bottom.

iii. If water is pumped through the dragheads to flush out the hopper dredge bins, the heads must be kept at least twenty (20) feet below the water surface.

b) Bucket dredge of any type:

i. All digging passes of the bucket must be completed without any material, once in the bucket, being returned to the wetted area.

ii. No dumping of partial or full buckets of material back into the project area is allowed.

iii. The volume, speed, or both of digging passes must be controlled to minimize siltation to the maximum extent practicable.

c) Dredging of holes or sumps below maximum depth and subsequent redistribution of sediment by dredging, dragging, or other means is prohibited.

d) All anthropogenic debris must be removed from dredged sediments prior to flow lane disposal and transported to an appropriate upland disposal site.

e) Redredging of disposed materials is prohibited, except at the Harrington Sump. Should mounding or other circumstances make it necessary to redredge materials from an approved in-water disposal site, the USACE must obtain a site-specific 401 WQC for each individual dredging activity.

f) Dredging by Others: Other individuals may be allowed, under licenses issued at the discretion of the USACE, to dredge commercial grade sediments from the navigation channel. In Oregon waters, all such work by others is subject to the conditions contained in this certification and also must comply with leasing and royalty requirements of the Oregon Department of State Lands (DSL).

g) If the dredging operation causes a water quality problem that results in distressed or dying fish, the operator shall immediately: cease operations; take appropriate corrective measures to prevent further environmental damage; collect fish specimens and water samples; and notify DEQ, ODFW, and NMFS within 24 hours of the incident.

5) **In-Water Disposal:**

a) Flowlane disposal must take place in areas in or adjacent to the federal navigation channel with depths between -35 to -65 feet, and waterward of the -20 foot contour Columbia River Datum (CRD). Flowlane disposal in areas with depths greater than -65 feet is prohibited until further studies on sturgeon are completed. If such studies are determined by the multi-agency Adaptive Management Team (AMT) to demonstrate acceptable impacts, DEQ may allow flowlane disposal in areas with depths greater than -65 feet in Oregon waters at RM 29 to 40, RM 54 to 56.3, and RM 72.2 to 73.2. Flowlane disposal sites must be selected so that the material disposed:

i. Disperses into or immediately adjacent to the mainstream navigational channel;

ii. Is not likely to cause significantly increased shoaling in downstream side channels or to shoreline facilities such as docks, wharfs, vessel slips and marinas; and,

iii. Is not likely to cause significant adverse alteration of bottom habitats critical to the life history of white and green sturgeon.

b) Flowlane disposal via pipeline must employ BMPs including fitting the pipeline end scow with a twenty (20) foot downspout so that discharge occurs at least twenty (20) feet below the surface of the water.

c) In-water disposal of sediment in areas supporting populations of Dungeness crab is only allowed during times of least crab abundance. In addition to the minimal acceptable limitations specified in Condition 2 d, USACE must further limit disposal when crabs are observed in the immediate area by USACE, or as determined by communication with crab harvesters or fisheries agencies. USACE must coordinate disposal activities through the Adaptive Management Process as detailed below in Condition 8.

d) In-water disposal may not occur within identified eulachon (smelt) spawning areas during the peak outmigration. If in-water disposal is essential during the period of peak outmigration, then USACE must further study the potential for Eulachon losses as a result of dredged material disposal impacts and report the results of such study to DEQ. DEQ may approved disposal on a case by case basis with appropriate mitigation measures developed based on the study outcomes. In addition to the

minimum limitations on disposal locations and timing specified in Condition 2 e, USACE must coordinate through the Adaptive Management Process as detailed below in Condition 8, to develop and propose to DEQ for approval additional limitations which may be warranted in light of visual observations, and communication with the fisheries agencies.

d) Beach Placement – Material must be placed with consideration for existing hydraulic forces interfacing with beach areas. Goals should be to place material at locations where flows push material onto and along beach areas to encourage deposition and stability while minimizing turbidity during placement and due to from potential future erosion.

6) **Upland Disposal:** Upland disposal sites must be large enough to accommodate the quantity of material and water to be placed there in order to allow adequate settling. All reasonable Best Management Practices (BMPs) must be employed to encourage settling and reduce turbidity levels from the upland disposal locations to the maximum extent practicable. Required BMPs include, but are not limited to: discharge pipes at or below thirty (30) feet below the surface of the water; surface trenching; weir management; telescoping weirs; sand screws; scalping screens (for debris removal); grizzly or vibrating wet screens; hydrocyclones; recycling clarifier overflows; inclined wedge wire screens; centrifuges; filter presses; filter bags, sediment fences, silt curtains, leave strips or berms, or other measures sufficient to prevent movement of spoils. Measures employed must be inspected and maintained daily to ensure their proper function.

7) **Turbidity and Dissolved Oxygen Monitoring:** All dredging and disposal of sediments must be conducted so as to minimize siltation and turbidity and to maximize Dissolved Oxygen levels in the Columbia River. Turbidity must not exceed 10% above natural stream turbidities, except where allowed by OAR 340-041-0036. This rule states, in part, that limited duration activities necessary to accommodate essential dredging, and that cause the numeric turbidity criterion to be exceeded may be authorized provided all practical turbidity control techniques have been applied and a section 401 water quality certificate has been granted.

Prior to any dredging taking place, USACE must develop and implement a Water Quality Sampling and Monitoring Plan for dredging and disposal that has been reviewed and approved by DEQ. Changes and modifications to the plan may be required by DEQ for approval. The plan must include the following minimum requirements:

a) Parameters to be sampled: The following parameters must be monitored:

i. Turbidity during dredging and disposal anywhere that active dredging and disposal is occurring.

ii. Dissolved Oxygen must be monitored during active dredging of the following areas outside the bounds of the 600-foot wide navigation channel: side channels and the outside edges of the authorized 100-foot wide overwidth where sloughing may occur.

b) Locations of Turbidity samples: Locations of turbidity sampling sites must be identified and described in the plan. At a minimum, sampling must take place at the following distances, and within any visible plumes:

i. Dredging and in-water disposal activities (flowlane and beach placement) - Upcurrent (background) and 900 feet downcurrent from the point of discharge (bucket, cutterhead, draghead, or pipeline) and no more than 150 feet laterally from the vessel or shoreline.

ii. Other disposal activities (upland) - Upcurrent (background) and 300 feet down current from the discharge point.

iii. Depth - USACE must identify a depth between 10 and 20 feet, or at mid-depth if in shallow areas (less than 20 feet in depth), to collect all the samples.

c) Number/Timing of samples: Samples must be collected during daylight hours when dredging and disposal is being conducted and must meet the following requirements:

i. Active Dredging - once a day during a flood tide and once a day during an ebb tide.

ii. In-Water Disposal (Flowlane and Beach Placement) - once a day during a flood tide and once a day during an ebb tide during a disposal activity.

iii. Upland Disposal– For each disposal event, every four hours until discharge ceases.

iv. Background turbidity in NTU, location, tidal stage, and time must be recorded prior to monitoring downcurrent.

d) Compliance:

i. Turbidity must be measured and recorded as described above during periods of active dredging, disposal, and dewatering of upland facilities during daylight hours. Results must be compared to the background sample taken during that monitoring event. If a 10% or greater exceedance over the background level occurs at a compliance point in the plume within Oregon waters, modify the activity and continue to monitor at the intervals specified above per activity type. If, during the second monitoring interval, levels of turbidity exceed 5 NTU over the background level where background is less than 50 NTU, or 10% over the background level where background is 50 NTU or greater, the activity must stop until the turbidity levels return to background. At that time, activity may resume with the minimum frequency of monitoring while maintaining compliance.

<table>
<tr><th rowspan="2">TURBIDITY CAUSING ACTION</th><th colspan="2">ALLOWABLE EXCEEDANCE TURBIDITY LEVEL</th><th rowspan="2">ACTION REQUIRED AT 1ST MONITORING INTERVAL</th><th rowspan="2">ACTION REQUIRED AT 2ND MONITORING INTERVAL</th></tr>
<tr><th>Background < 50 NTU</th><th>Background ≥ 50 NTU</th></tr>
<tr><td>DREDGING & IN-WATER DISPOSAL</td><td rowspan="2">0 to 5 NTU above background</td><td rowspan="2">10% over background</td><td>Continue to monitor at ebb or flood tide</td><td>Continue to monitor at ebb or flood tide</td></tr>
<tr><td>UPLAND DISPOSAL</td><td>Continue to monitor every 4 hours</td><td>Stop work after 8 hours of exceedence</td></tr>
</table>

ii. If dissolved oxygen levels are measured below 6.5 mg/l, the activity must be modified and monitoring frequency must increase to every four hours during active dredging outside the navigation channel, as described in Condition 7 a ii. If the level of dissolved oxygen falls below 6.0 mg/l, the activity must be stopped until the levels return above 6.0 mg/l.

e) Equipment: Turbidity and dissolved oxygen must be sampled using a turbidimeter and a dissolved oxygen meter, respectfully, that are properly and regularly calibrated according to the operator's manual. Quality assurance and control procedures, as well as accuracy of the instrument, must be identified in the Water Quality Sampling and Monitoring Plan. Routine and regular quality assurance measurements are to be recorded to verify the equipment is properly calibrated.

f) Reporting: The USACE must submit an annual monitoring report to DEQ. The report must include:

i. monitoring locations;

ii. background levels of turbidity and dissolved oxygen (when applicable):

iii. turbidity measurements at required intervals and depths;

iv. at least one quality assurance measurement against a standard;

v. dissolved oxygen levels at required intervals and depths (when applicable);

vi. when/if the activity is modified or stopped as a result of exceedances of levels of turbidity and/or dissolved oxygen;

vii. what actions were taken to modify the activities if the turbidity or dissolved; oxygen levels were exceeded and/or how long the activity was stopped;

viii. what BMPs were used to bring the levels into compliance; and,

ix. when the activity began again.

g) Restricted Visibility: During periods of restricted visibility that could cause an unsafe condition, the USACE may postpone required turbidity and dissolved oxygen compliance monitoring until conditions improve if confirmation is made by a third party, such as the Coast Guard Watch Stander or the National Weather Service, that the visibility in the area to be monitored is considered to be restricted and is unsafe to conduct the required monitoring. If monitoring is postponed due to restricted visibility and unsafe conditions, the weather condition (fog, mist, heavy rainstorm, etc.), time of determination, and verification route must be recorded. Regular monitoring must resume once the visibility resumes to safe levels.

8) **Adaptive Management Process:** The adaptive management process was set out in the 2003 CRCIP 401 WQC and has evolved during the course of regular meetings and documents on record. USACE shall continue to implement the adaptive management process through implementation of the *Columbia River Channel Improvement Project Adaptive Environmental Management Plan* (AEM Plan), which is incorporated by reference, and regularly convened meetings of the multi-agency Adaptive Management Team (AMT).

a) The adaptive management process must be used to continue to address potential, long-term effects of dredging and dredged material disposal on estuarine habitats, and biological resources.

b) As detailed in the AEM Plan, the adaptive management process may not terminate earlier than two years after the CRCIP project is completed, including dredging of all necessary overwidth areas, and may extend longer.

c) As detailed in the AEM Plan, USACE must continue to coordinate and arrange the AMT meetings. Meetings will take place at a minimum on a quarterly basis in a one year period, or as agreed upon by each AMT member.

d) Progress on planned studies, monitoring, and other project-related data collection must be discussed with AMT. USACE must provide AMT members at least 30-day notice of opportunities to comment on proposed studies, reports and/or actions. Final study results and data must be assessed by USACE as to any implications with respect to any of the performance measures within the AEM Plan and presented to the AMT for concurrence.

e) USACE must explain in writing to DEQ the significance of any new information developed or discovered during the project that efforts for potential project effects on estuarine species and habitats. All data and summary reports must be made available to DEQ within a reasonable amount of time, not to exceed 30 days, after completion.

f) DEQ's approval of changes to dredging and disposal operations recommended as a result of studies and analysis during the AMT process will typically be made through participation in the process which results in concurrence of the AMT. However, DEQ may dissent per the elevation process as detailed in the AEM Plan. In this case, USACE must obtain separate DEQ approval of proposed actions to address water quality and beneficial use information under this 401 WQC.

9) **Regional Sediment Management Program:** USACE shall continue to cooperate with DEQ, Department of Land Conservation and Development (DLCD), and other Oregon and Washington Resource Agencies to develop and implement an integrated Regional Sediment Management Plan that encompasses this project as well as other Columbia River navigation projects. The plan must optimize management and beneficial re-use of materials necessary for removal from the Columbia River system with the goal of retaining sediment resources within riverine, estuarine, and littoral systems in order to foster sustainable environmental, resource management and economic objectives. Highest priority shall be given to placing dredged material at sites that have been

identified by state and federal resource agencies as beneficial. When available for use, USACE shall fully integrate these beneficial sites into this project.

10) **Blasting:** Prior to undertaking any blasting for rock removal, USACE must submit to DEQ documentation of an ODFW and NMFS approved blasting plan and all required permits being obtained. The plan must be thoroughly assessed and based upon the most current information of underwater blasting techniques and protective measures, including least toxic components and by-products, that are appropriate to the conditions of the river in the proposed blast area(s) and species which may be present there.

11) **Notification:** The USACE must notify DEQ at least 14 days prior to the preconstruction meeting in any given year, at least 14 days prior to the scheduled start of dredging in any given year, and upon completion of dredging and disposal operations covered by this 401 WQC in any given year.

12) **Reporting:** The USACE shall compile and submit an annual report to DEQ no more than 90 days after the dredging season ends. The annual report must include:

a) Locations dredging occurred;
b) Amounts of material dredged in all locations;
c) Disposal locations;
d) Amounts of material disposed of in each Oregon location;
e) Annual turbidity and dissolved oxygen monitoring, including explanation of exceedances, as described in Condition 7 f; and,
f) Descriptions of upland disposal locations during operations, including BMPs employed and effectiveness of those BMPs. Required details include:
    i. size of the discharge pipe;
    ii. depth of the river at the end of the pipe;
    iii. volume of water piped into the upland site;
    iv. volume of water discharged at peak discharge rate; and,
    v. photographs that fully capture the upland site, discharge pipe and any visual plume during operation.

13) **Spill Prevention:**

a) Petroleum products, chemicals, or other deleterious waste materials must not be allowed to enter waters of the State.
b) Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., must undergo frequent inspection for drips or leaks, and shall be maintained in order to prevent spills into State waters.

14) **Spill and Incident Reporting:** In the event that petroleum products, chemicals, or any other deleterious materials are discharged into state waters, or onto land with a potential to enter state waters, the discharge shall be promptly reported to the Oregon Emergency Response Service (OERS, 1-800-452-0311). Containment and cleanup must begin immediately and be completed as soon as possible.

15) A copy of this WQC letter must be kept on the job site and readily available for reference by the USACE DEQ personnel, the contractor, and other appropriate state and local government inspectors.

16) This 401 WQC is invalid if the project is operated in a manner not consistent with the project description contained in the Public Notice for certification. Failure to comply with the conditions of this certification may subject the applicant to civil penalties or other administrative or judicial actions.

17) USACE and its contractors must allow DEQ site access upon request.

If you are dissatisfied with the conditions contained in this certification, you may request a hearing before the Environmental Quality Commission. Such request must be made in writing to the Director of DEQ within 20 days of the mailing of this certification.

The DEQ hereby certifies that this project complies with the Clean Water Act and state water quality standards, if the above conditions are strictly adhered to.

The applicant shall notify the DEQ of any change in the ownership, scope, or construction methods of the project subsequent to certification. If you have any questions, please contact Alexandra Cyril at 503.229.6030.

Sincerely,

Sally Puent
Water Quality Manager
Northwest Region

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cc: Loree Randall, Washington Department of Ecology
Patty Snow, ODFW
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